

Claims

- [c1] 1. A saw arrangement including (a) a saw blade having a saw body and a cutting edge disposed along a periphery of said saw body for cutting during movement of said saw blade; and (b) a lubricating guide support having a bearing surface disposed immediately adjacent said saw body for proper alignment of said saw blade during cutting, said guide support containing liquid exposed to said saw body at said bearing surface, wherein the improvement comprises said saw body defining a plurality of cavities therein whereby the liquid is applied to said saw body as it passes by said bearing surface during movement of said saw blade, each one of said cavities arranged on said saw body to pass by said exposed liquid during movement of said saw blade and dimensioned to receive liquid therein for transport of the liquid away from said bearing surface.
- [c2] 2. The saw arrangement of claim 1, wherein said bearing surface is disposed approximately 0.002 inches from said saw body.
- [c3] 3. The saw arrangement of claim 1, wherein said saw body has a thickness no greater than 0.080 inches.
- [c4] 4. The saw arrangement of claim 1, wherein each one of said cavities is triangular in cross-section.

- [c5] 5. The saw arrangement of claim 1, wherein each one of said cavities has a triangular cross-section, a trailing edge of which is oriented at negative 5 degrees to a radius of the saw body.
- [c6] 6. The saw arrangement of claim 1, wherein wherein each one of said cavities includes a radial dimension greater than 0.015 inches sufficient to receive liquid therein for transport.
- [c7] 7. The saw arrangement of claim 1, wherein each one of said cavities extends through said saw body from a first side thereof to a second, opposite side thereof.
- [c8] 8. The saw arrangement of claim 1, wherein said plurality of cavities comprise three cavities spaced 120 degrees to one another about a center of said saw body.
- [c9] 9. The saw arrangement of claim 1, wherein each one of said cavities includes a radial dimension that varies along a circumferential direction of said saw body between opposed circumferential ends of said cavity.
- [c10] 10. The saw arrangement of claim 1, wherein each one of said cavities includes corners all of which are rounded.
- [c11] 11. A circular saw blade, comprising a planar saw body defining a plurality of cavities therein, each one of said cavities being sufficient to receive liquid therein for transport and having a triangular cross-section with a trailing edge oriented at an approximate negative 5 degrees to a radius of the saw

body.

- [c12] 12. The circular saw blade of claim 11, wherein said saw body has a thickness no greater than 0.080 inches.
- [c13] 13. The circular saw blade of claim 11, wherein wherein each one of said cavities includes a radial dimension greater than 0.015 inches sufficient to receive liquid therein for transport.
- [c14] 14. The circular saw blade of claim 11, wherein each one of said cavities extends through said saw body from a first side thereof to a second, opposite side thereof.
- [c15] 15. The circular saw blade of claim 11, wherein said plurality of cavities comprise three cavities spaced 120 degrees to one another about a center of said saw body.
- [c16] 16. The circular saw blade of claim 11, wherein each one of said cavities includes a radial dimension that varies along a circumferential direction of said saw body between opposed circumferential ends of said cavity.
- [c17] 17. The circular saw blade of claim 11, wherein each one of said cavities includes corners all of which are rounded.
- [c18] 18. A circular saw blade, comprising a planar saw body having an axial thickness no greater than 0.080 inches and defining a plurality of cavities therein, each one of said cavities being sufficient to receive liquid therein for transport.

- [c19] 19. The circular saw blade of claim 18, wherein each one of said cavities is triangular in cross-section.
- [c20] 20. The circular saw blade of claim 18, wherein each one of said cavities has a triangular cross-section, a trailing edge of which is oriented at negative 5 degrees to a radius of the saw body.
- [c21] 21. The circular saw blade of claim 18, wherein wherein each one of said cavities includes a radial dimension greater than 0.015 inches sufficient to receive liquid therein for transport.
- [c22] 22. The circular saw blade of claim 18, wherein each one of said cavities extends through said saw body from a first side thereof to a second, opposite side thereof.
- [c23] 23. The circular saw blade of claim 18, wherein said plurality of cavities comprise three cavities spaced 120 degrees to one another about a center of said saw body.
- [c24] 24. The circular saw blade of claim 18, wherein each one of said cavities includes a radial dimension that varies along a circumferential direction of said saw body between opposed circumferential ends of said cavity.
- [c25] 25. The circular saw blade of claim 18, wherein each one of said cavities includes comers all of which are rounded.